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PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference WO 800258-Kp		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/NL02/00554	International filing date (day/month/year) 21.08.2002	Priority date (day/month/year) 22.08.2001	
International Patent Classification (IPC) or both national classification and IPC C08G18/12			
Applicant STAHL INTERNATIONAL B.V.			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of 1 sheets.</p>			
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the opinion</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>			
Date of submission of the demand 21.02.2003		Date of completion of this report 20.11.2003	
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized Officer Krätzschmar, U Telephone No. +49 89 2399-2137 	

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/NL02/00554**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17):*

Description, Pages

1-30 as originally filed

Claims, Numbers

2-5, 7-15 as originally filed

1, 6 received on 16.09.2003 with letter of 11.09.2003

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

5. ☒ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/NL02/00554**

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	6-14
	No: Claims	1-5,15
Inventive step (IS)	Yes: Claims	6-14
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-15
	No: Claims	

2. Citations and explanations

see separate sheet

Ad section I.5:

The amendments of claim 1 filed with the letter dated 11.09.2003 introduce subject-matter which extends beyond the content of the application as filed, contrary to Article 34(2)(b) PCT. The amendment concerned is the following: "which is 50 to 300°C which is maintained for 1 to 20 min without selected additives".

Ad section V.:

1. Novelty (Art. 33(2) PCT):

1.1. Claim 1 does not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not clearly defined. The following functional statements do not enable the skilled person to determine which technical features are necessary to perform the stated function: "is adjusted to a temperature ... by the addition of an additive". The technical features necessary for achieving the desired result such as the kind and amount of additive and also the various other factors that control the reaction as indicated in claim 5 have not been given. As said functional feature constitutes the distinguishing feature over the prior art document WO-A-01/23451 (D1) novelty of the subject-matter of present claims 1 to 5 and 15 cannot be acknowledged. Especially the Examples 14 to 16 in D1 wherein a solvent and optionally a surfactant (cf additives according to present claim 4) is added to the powder of the compound containing reactive hydrogen seem to fall within the scope of said claims.

Nor is the subject-matter of claims 1 to 5 and 15 considered to be novel over US-A-4 912 152 (D2). D2 already discloses a coating composition comprising (A') a mixture of at least one polyisocyanate compound and at least one polar compound having a high boiling point, having dispersed therein (B') a solid polyfunctional compound having at least one active hydrogen atom such as dihydrazides (see claims 9-18 in combination with col.6, l.28 - col.7, l.45). The polar compound falls within the general term "additive" according to present claim 1 and also within the term "solvent" according to present claim 4 (see the list of fluids given in col.6, ll.45-55 including e.g. N-methylpyrrolidone). As can be seen from the results shown in table 1 of D2 the addition of such a polar compound leads to shorter curing times (see e.g. Examples 5 and 8 in comparison to Ex. 1, Ex. 6 in comparison to Ex. 2).

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/NL02/00554

- 1.2. The specific use of the additives according to present claims 6 to 11 and of the second reactive system according claims 12 to 14 is not disclosed in the documents cited in the search report. The subject-matter of these claims is therefore considered to be novel.

2. Inventive step (Art. 33(3) PCT):

The subject-matter of claims 6 to 14 is also considered as involving an inventive step. Neither D1 nor D2 suggests that the reaction rate of the coating mixture can be increased or reduced by the addition of the compounds according to said claims.

16. 09. 2003

(71)

NEW CLAIMS 1 AND 6

1. A process for the preparation of a coating, coated substrate, film or sheet, in which process a coating mixture comprising a reactive system of a polyisocyanate-functional, polyketone-functional, polyepoxide-functional, polyanhydride-functional and/or polycyclic carbonate-functional compound or polymer and a dispersion or fine powder of a compound containing a reactive hydrogen, which mixture is not or low-reactive at room temperature, is applied onto a substrate at ambient temperature, resulting in a substrate coated with the coating mixture, followed by reacting the compounds mentioned above by elevating the temperature, **characterized**, in that the reaction temperature, which is 50 to 300°C which is maintained for 1 to 20 min without selected additives, is adjusted to a temperature which is 3-50°C higher or lower than said temperature in a similar reaction time by the addition of an additive to the coating mixture, prior to elevating the temperature or to one of the reactants of the coating mixture prior to the mixing with the other component, and in which optionally a second reactive system is present and both systems are essentially reacted as a sequential two step reaction while between these reaction steps the coating is remoulded.

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6. A process according to claims 1-5, **characterized**, in that the reaction rate is increased by the addition of water, an acid, a base, a metal catalyst, together with a surfactant, to the coating mixture, and a coating is formed at a temperature which is 3-50°C below the original temperature.

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